REMARKS/ARGUMENTS

In view of the following remarks, Applicant respectfully requests reconsideration and allowance of the subject application. Claims 1-42 and 44-45 are cancelled without prejudice. New claims 46-48 are added. Claims 43, 46-48 are pending. New claims 46-48 are supported by the specification as originally filed. Further, the claimed subject matter of claims 46-48 falls within the scope of the previously searched subject matter. Applicant respectfully requests that the claim amendments be entered as the present claim amendments do not raise any new issues and the amendments reduce the number of issues for appeal.

§103 REJECTIONS

Claim 43 stands rejected under §103 as being unpatentable over US Patent No. 4,746,935 to Allen hereinafter referred to as "Allen" in view of US Patent No. 6,271,102 to Brouillette et al hereinafter referred to as "Brouillette."

Claim 43 relates to a method of forming slots in a semiconductor substrate having first and second opposing surfaces and recites, amongst other things, "removing material from a second surface of the semiconductor substrate effective to form, in combination with said cut, a slot at least a portion of which passes entirely through the substrate, the slot being defined, at least in part, by first and second sidewalls and first and second endwalls extending therebetween, and wherein said making forms a first portion of the end walls and said removing

forms a second portion of the end walls and wherein the first and second portions of each of the end walls meet at angle greater than or equal to ninety degrees relative to the substrate."

Allen discloses that the "general purpose of this invention is to provide a new and improved thermal ink jet printer and method of operation which overcomes the aforedescribed disadvantages of the prior art and consequently provides a print head of decreased drop generator design complexity and characterized by an extended lifetime." (Col. 2, ll. 5-10). Allen further discloses that a "silicon substrate 30 includes a common ink feed-hole 32 in the form of a cylinder or slot through substrate 30 and configured using diamond saw blade or laser drilling techniques." (Col. 3, ll. 45-48). Allen does not suggest that there is a problem with this approach to forming slots or a need to improve it.

Brouillette discloses a "method and system for dicing a semiconductor wafer providing a structure with greatly reduced backside chipping and cracking, as well as increased die strength." (Brouillette, Abstract). Dicing is completely different than forming "a slot at least a portion of which passes entirely through the substrate," Brouillette is absolutely silent as to endwall configuration which is to be expected as dicing one object into two inherently cannot create endwalls. For at least this reason, the combination of Allen and Brouillette does not disclose "removing material from a second surface of the semiconductor substrate effective to form, in combination with said cut, a slot at least a portion of which passes entirely through the substrate, the slot being defined, at least in

part, by first and second sidewalls and first and second endwalls extending therebetween," as recited in Claim 43.

Claims 46-48 depend from claim 43 and are allowable for at least the same reason as claim 43.

Applicants respectfully submit that there is no motivation to combine Brouillette and Allen. Brouillette discloses that "chips flexed in bending such that the active face and diced edges are placed in tension show large strengths with little variability while those flexed such that the non-active face and diced edges are placed in tension show small strengths with large variability." (Col. 1, ll. 44-48). These problems relate to cuts that separate portions of a semiconductor die from each other. There is no indication in Allen or Brouillette that such flexing occurs when a slot is formed through a substrate as disclosed in Allen. Therefore, for at least this reason, there is no motivation to combine Allen with Brouillette and claims 43 and 46-48 are allowable.

At page 2 of the Final Office Action, the Examiner states that "Brouillette teaches an improved method for forming a slot through a silicon substrate." Applicant respectfully disagrees that Brouillette has anything to do with slots or forming features through a substrate. Claim 43 recites that a slot is structure "at least a portion of which passes entirely through the substrate." Dicing as disclosed in Brouillette divides a "wafer into dies having minimized backside chipping and microcracking." (Col. 3, ll. 20-22). As such, Brouillette does not relate to forming a slot or other feature through a substrate, as the substrate is

separated into pieces, and is not in the same field of endeavor as either the claimed subject matter or Allen. For at least this reason, there exists no motivation to combine Allen with Brouillette and claims 43 and 46-48 are allowable fore at least this reason.

Conclusion

Claims 43 and 46-48 are believed to be in condition for allowance. Applicants respectfully request reconsideration and prompt issuance of the present application. Should any issue remain that prevents immediate issuance of the application, the Examiner is encouraged to contact the undersigned attorney to discuss the unresolved issue.

Respectfully Submitted,
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